LISTING OF CLAIMS

        1(CURRENTLY AMENDED). A player for playing an optical disc with a first side and a second side, wherein data is arranged on the data layer of said first side along a first spiral oriented in a first direction when viewed on said first side, and data is arranged on the data layer of said second side along a second spiral oriented in a direction opposite that of said first spiral when viewed on said second side; said player comprising:

        a controller determining a direction of rotation for the disc that allows data to be read from either side of the disc, said controller generating corresponding controller commands, by analyzing the waveshape of the signals on the disc;

        a motor responsive to said controller commands to rotate the disc in said direction of rotation; and

        a read head disposed adjacent to said first side for reading data<u>;</u>

<u>   wherein said controller includes an A/D converter receiving an analog signal from said read head representing said waveshape and converting said analog signal into a digital stream and a data decoder receiving said digital stream and attempting to convert said digital data stream into recognized data using a first set of parameters P1, and generating an output indicative of whether said attempt; and</u>

<u>   wherein said controller generates a first command if said output indicates that said data decoder was successful in generating recognized data and a second command if said output indicates that said data decoder was not</u>

<u>successful in generating recognized data</u> .

Claims 2-3 (Cancelled)

4(ORIGINAL). The player of claim 1 wherein said disc includes a main portion with program data arranged along said first spiral to allow data to be read from said main portion when said disc is rotated in said direction of rotation, and a special portion with disc characteristic data arranged to be read when the disc is rotated in an opposite direction, and wherein said controller sends a read command to said read head to read data in said special portion.

5(ORIGINAL). The player of claim 4 wherein said controller generates said read command only when no data is detected in the main portion.

6(ORIGINAL). The player of claim 1 further comprising a display showing information about the operation of the player and/or disc characteristics.

7(CURRENTLY AMENDED). A player for playing an optical disc with a first side and a second side, wherein data is arranged on the data layer of said first side along a first spiral oriented in a first direction when viewed on said first side, and data is arranged on the data layer of said second side along a second spiral oriented in a direction opposite that of said first spiral when viewed on said second side; said player comprising:

a controller determining a direction of rotation for the disc that allows data to be read from either side of the disc, said controller generating corresponding messages to a user indicating whether the disc is rotated iun the proper direction and controller commands responsive to user actions;

a motor responsive to said controller commands to rotate the disc in said direction of rotation;

a read head disposed adjacent to said first side for reading data[[,]] ; and

a manual switch operable by a user in response to said messages for controlling the direction in which said motor rotates the disc;

_____ wherein said controller includes an A/D converter receiving an analog signal from said read head representing a waveshape corresponding to data read by said read head and converting said analog signal into a digital stream and a data decoder receiving said digital stream and attempting to convert said digital data stream into recognized data using a first set of parameters P1, and generating an output indicative of whether said attempt; and

_____ wherein said controller generates a first command if said output indicates that said data decoder was successful in generating recognized data and a second command if said output indicates that said data decoder was not successful in generating recognized data.

8(ORIGINAL). The player of claim 1 further comprising a yoke that selectively switches said read head between said sides.

9(ORIGINAL). The player of claim 1 comprising a first and a second read head, each read head being positioned on a respective side of the disc.

Claims 10-18 cancelled.

19(CURRENTLY AMENDED). An optical disc player for reading a disc having first and second sides, each side carrying data arranged to be read only when the disc is rotating in a first direction and has a first orientation or the disc is rotating in a second direction and has a second orientation, the player comprising:

a controller that issues controller commands;

at least a first read head to read data from said first side of the disc;

a motor rotating said disc in a specified direction; and

a display responsive to controller commands to display a message requesting that the disc be reversed;

~~wherein said controller generates said controller commands if if said first head cannot read any data from said disc;~~

wherein said controller includes an A/D converter receiving an analog signal from said first read head representing said dataand converting said analog signal into a digital stream and a data decoder receiving said digital stream and attempting to convert said digital data stream into recognized data

using a first set of parameters P1, and generating an output indicative of whether said attempt; and

wherein said controller generates a first command if said output indicates that said data decoder was successful in generating recognized data and a second command if said output indicates that said data decoder was not successful in generating recognized data .

20(CURRENTLY AMENDED). A method of operating an optical disc player comprising:

inserting an optical disc into the disc player, said disc having at least one side with a data layer with data;

rotating the disc in a predetermined direction;

determining if the data is readable by:

reading an analog signal from the disc;

converting said analog signal into a digital stream;

attempting to generate recognized data from said analog signal using a first set of parameters P1;

; and

~~reversing the rotation of the disc if the data is not readable~~ generating a command if the generation of said recognized data is succesful.

21(CANCELLED).

22(ORIGINAL). The method of claim 20 wherein said data layer includes program data and a special portion with disc characteristic data, wherein said step of determining includes attempting to read said special portion.

23(ORIGINAL). The method of claim 22 wherein said program data and said disc characteristic data are arranged on said data layer so that they can be read when the disc is rotated in an appropriate direction.

24(ORIGINAL). The method of claim 22 wherein said program data is arranged so that it can be read only when the disc is rotated in a first direction and said disc characteristic data is arranged so that it can be read only when the disc is rotated in a second direction opposite to said first direction.

25(ORIGINAL). The method of claim 20 wherein said data layer includes a first portion having first data arranged for reading when the disc is rotated in a first direction and a second portion with second data arranged for reading when the disc is rotated in a second direction opposite said first direction, and wherein first an attempt is made to read said first data, and if this first data cannot be read, then the rotation is reversed and an attempt is made to read said second data.

26(ORIGINAL). The method of claim 20 wherein said data layer includes said special data that is readable when the disc is rotated either in a first

or a second direction, said data being indicative of the proper direction rotation required for data on the disc to be read, wherein said step of determining includes reading said special data.

27(CURRENTLY AMENDED). A method of operating a disc player to play a disc having a first and a second side, each said side having data arranged along a respective first and second spiral, said spirals being mirror images of each other when viewed from the respective sides, so that the disc can be read when it is rotated in a first direction and has a first orientation, or when it is rotated in a second direction and has a second orientation, comprising:

inserting the disc into the player;

determining the orientation of the disc by:

                reading an analog signal from the disc;

                converting said analog signal into a digital stream;

                attempting to generate recognized data from said analog signal using a first set of parameters P1; ; and

rotating the disc in the direction required to play one of said sides of the disc based on the orientation of the disc.

28 (CANCELLED)

29(PREVIOUSLY AMENDED). The method of claim 27 wherein the step of determining includes rotating the disc in a predetermined direction

and attempting to read data from said first side.

30(ORIGINAL). The method of claim 29 further comprising reversing said rotation if data is not read from said first side.

31(ORIGINAL). The method of claim 27 wherein said disc has a special section on the first side, and wherein said step of detecting includes detecting said special section.

32(CURRENTLY AMENDED). The method of claim 27 wherein said disc has on said first side a first special section with data oriented along said first spiral and a second special section with data ~~oriented along a third~~ disposed along a spiral oriented in a direction opposite that of said first spiral, and wherein said step of detecting includes rotating the disc for reading the data on the first special section, attempting to read the data on the first special section, and if no data is found on the first special section, reversing the rotation of the disc and attempting to read the data on the second special section.

33(ORIGINAL). The method of claim 27 wherein said disc includes a special section on one side with data indicative of the required direction of the rotation for the disc for data to be read from either side, said data being readable independently of the direction of rotation of the disc and wherein said step of detecting the first side includes reading the data on said special section.

34-37 (CANCELLED)

38 (PREVIOUSLY PRESENTED). The player of claim 37 wherein said motor rotates in a first direction to read the sides of said special optical DVD discs and wherein said motor rotates in said first direction for one side of said standard discs and in the other direction for the other side of said standard discs.

39 (NEW). The player of claim 1 wherein if said data encoder is unsuccessful with said first set of parameters, it further attempts to convert said digital stream into recognized data by comparing said digital stream to a second set of parameters, and wherein if the data encoder is successful with said second set of parameters, said controller generates a reverse command to reverse the direction of rotation of said motor.

40(NEW). The player of claim 39 wherein said sets of parameters are obtained by analyzing signals from said read head corresponding from a known sample on a disc.

41 (NEW). The player of claim 1 wherein said data decoder further includes a shift register storing a predetermined portion of said digital stream, and wherein if said data decoder is unsuccessful with said first set of parameters, the data decoder attempts to generate a recognized data using said portion from

said shift register in a reverse order.

42 (NEW). The method of claim 20 wherein a message is displayed to reverse the rotation of said disc if said recognized data is not generated.

43 (NEW). The method of claim 20 wherein the rotation if said disc is reversed automatically if said recognized data is not generated.

44 (NEW). The method of claim 20 further comprising attempting a second time to generate said recognized data if said recognized is not generated in a first attempt, said second attempt using a second set of parameters P2 characteristic of a reversed digital stream corresponding to the disc rotation being reversed.

45(NEW). The method of claim 20 further comprising storing a portion of said stream and if said attempt is unsuccessful, making a second attempt by reversing said portion.